



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/613,720

07/03/2003

Lin Davis

15828-183001

4972

26231

7590

10/05/2004

FISH & RICHARDSON P.C.
5000 BANK ONE CENTER
1717 MAIN STREET
DALLAS, TX 75201

EXAMINER

BLOUNT, ERIC

ART UNIT

PAPER NUMBER

2636

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/613,720

Applicant(s)

LIN DAVIS

Examiner

Eric M. Blount

Art Unit

2636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☒ Claim(s) 2,4-7 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 07032003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Non-patent literature.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 2, 4-7**, recite the limitation "said source detector". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5, 9, 10, 12-14, 16-17, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Tatsuno [U.S. Patent No. 6191695].

As for **claim 1**, Tatsuno teaches a fuel dispensing station comprising fuel dispensers, an ignition source detector, and a control unit (Figures 1 and 3). The electromagnetic wave sensor taught by Tatsuno is analogous to the ignition source detector claimed by applicant. It is well known in the art that it was believed at the time of the Tatsuno invention, that mobile phones and other electromagnetic wave generating devices were capable of producing sparks and/or ignition fires (See www.psc.ca/safety_info/safety_alerts/1999/sa99_18.htm, Canadian Petroleum Safety Council, Safety Alert #18). The electromagnetic wave sensor is for generating and transmitting a detection signal indicating the presence of an unwanted ignition source,

wherein that source comprises electromagnetic waves (column 2, lines 40-58). Tatsuno teaches a control unit which receives the detection signal and generates a control signal for output to the fuel dispenser, wherein the fuel dispenser responds by inhibiting the dispensing of fuel (column 2, lines 59-65).

As for **claim 2**, Tatsuno discloses a fuel-management unit and at least one communicator, wherein the fuel-management unit receives the detection signal output by the ignition source detector. The fuel-management unit outputs an information signal to inform users of unsafe conditions (column 2, lines 50-58). It is inherent that people are notified of the suspended fuel dispensers.

As for **claim 3**, the fuel dispenser includes a control unit therein, and the detection signals generated when the ignition source is detected is transmitted to the control unit via the fuel-management unit (column 2, lines 59-65).

As for **claims 4 and 5**, Tatsuno teaches that the ignition source detector (electromagnetic wave sensor) may be provided in an area outside the fuel dispensing station where an ignition source would be well sensed, such as a canopy above the fueling station or in each of the fueling units (column 9, lines 40-49). This reasonably meets all of the limitations set forth by the claims.

As for **claims 9, 10, and 12**, Tatsuno discloses that the fuel dispenser temporarily suspends fuel supply in response to a control signal from the control unit. A communicator is provided for outputting a sound and/or light signal. The ignition source detector taught by Tatsuno is an electromagnetic spectrum detector (column 2, line 40 – column 3, line 10).

As for **claim 13**, it has been shown above that Tatsuno teaches all of the limitation of the claim. Please see the claims above.

Regarding **claims 14 and 21**, Tatsuno discloses a method of detecting an unwanted ignition source, communicating the detection of the ignition source to a customer or other personnel, and suspending the delivery of fuel in response to the detection of the ignition source (column 2, lines 25-58).

As for **claims 16 and 17**, it has been shown above that Tatsuno teaches all of the limitations of the claims. Please see claims 9 and 10 above.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 6, 7, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tatsuno as applied to the claims above.

As for **claims 6 and 7**, Tatsuno teaches that the ignition source detector may be located outside of a fueling station in a location capable of detecting an unwanted ignition source or within a fueling station (column 2, lines 40-49). It is obvious that the ignition source could be located anywhere on, in, or around the fueling station that would provide the desired results. Location of the ignition source detector can be viewed as a matter of design choice.

Regarding **claims 18 and 19**, disclosed is a step of detecting the absence of an ignition source, and resuming the delivery of fuel in reaction to the detection of the absence of an ignition source (column 5, lines 24-37). Tatsuno teaches a re-fuel switch that can be used by a customer or personnel to resume the dispensing of fuel. Tatsuno does not specifically disclose that the resumption of fuel delivery automatically takes place in response to a non-detection signal. However, upon receiving non-detection signal a user should use the re-fuel switch to resume fueling operations. It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant that re-fueling operations could be initiated automatically or manually. The automatic operation might be done to eliminate user error and provide a smoother transition back into the re-fueling operation.

As for **claim 20**, it would have been obvious to one of ordinary skill in the art at the time of the invention that the re-fueling switch taught by Tatsuno could be provided anywhere at a gas station. One might want the onsite personnel to control the re-fueling switch so that users located near the ignition source could not attempt to restart the re-fueling operation while an ignition source was still present.

9. Claims 8, 11, 15, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tatsuno as applied to the claims above, and further in view of Castleman et al [U.S. Patent No. 5773826].

As for **claims 8, 11, and 15**, Tatsuno does not specifically disclose that the unwanted ignition source comprises a spark, an open flame, or embers. However, as

noted above, it was known in the art at the time of the invention by applicant that electromagnetic devices are capable of producing sparks when in the vicinity of fueling stations. The use of these devices ultimately leads to fires or explosions.

In an analogous art, Castleman et al teach that it was known in the art at the time of the invention by the applicant to use flame detectors to detect flames at gas storage facilities (column 1, lines 5-7 and 20-31). These gas storage facilities reasonably include fueling stations. The flame detector is an Infrared detector capable of detecting sparks, embers or open flames (column 3, lines 1-5). It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to incorporate the flame detector taught by Castleman et al with the system taught by Tatsuno because a combination of the two invention would result in a system capable of detecting and preventing several types of fire hazards at a fuel station.

As for **claim 22**, Tatsuno and Castleman et al have met all of the limitations. Please see all claims above for a further explanation of the rejection.

Conclusion

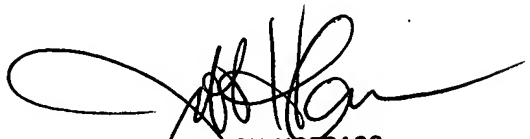
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Though not used in this action, Struthers et al, Kass et al, and Furuichi et al, all taught fuel dispenser safety apparatuses that were useful in the examination of this application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric M. Blount whose telephone number is 703-305-5042. The examiner can normally be reached on 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Hofsass can be reached on 703-305-4717. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eric M. Blount
Examiner
Art Unit 2636



JEFFERY HOFSSASS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600